CLAIMS

1. A method of fabricating a light duct (14) of thermoplastic material, the duct comprising a light relay (26) constituted by a rectangular section bar for conveying light along its longitudinal axis (A-A') referred to as a "first" axis, and provided at one of its ends both with a wall (28) that is inclined relative to said first axis, and with a lens (32), the axis of revolution (B-B') of the lens being contained in a longitudinal plane of symmetry, said duct (14) presenting a given maximum height H_{max} beyond the thickness of the lens and a given mean length L_{moy} along its longitudinal axis (A-A'), the duct being characterized in that it is made as a single piece by injection molding said thermoplastic material in a mold (1) presenting a cavity of shape identical to that of the duct, the injection taking place through a feed orifice disposed on one side of said cavity over a face that is substantially parallel to the plane defined by said axes (A-A', B-B'), said feed orifice presenting a height $\underline{h}$ lying in the range 0.2 H_{max} and H_{max}, and a length ℓ lying in the range 0.2 L_{moy} and 0.8 L_{moy}, the thermoplastic material being injected at a rate lying in the range 400 mm^3/s to 1500 mm^3/s.

2. A method according to claim 1, characterized in that said height $\underline{h}$ of said feed orifice is equal to 0.8 H_{max} and said length ℓ of said feed orifice is equal to 0.8 L_{moy}.

3. A method according to claim 1 or claim 2, characterized in that said rate is equal to 725 mm^3/s.

4. A method according to any preceding claim, characterized in that said mold (1) is maintained at a temperature regulated in the range 70°C to 90°C.

5. A method according to any preceding claim, characterized in that said mold (1) includes a lateral overflow orifice symmetrical to said feed orifice relative to the plane defined by said axes.

6. A method according to any preceding claim, characterized in that said mold (1) is extended by a first auxiliary mold portion of substantially rectangular section and of outlet corresponding to said feed orifice.

7. A method according to claims 5 and 6, characterized in that said mold (1) is extended by an overflow second auxiliary mold portion of substantially rectangular section, and of inlet corresponding to said lateral overflow orifice.

8. A method according to any preceding claim, characterized in that it includes a compacting and holding step applied to the injected material.

9. A method according to claim 8, characterized in that said compacting and holding step is performed in stages.

10. A method according to any preceding claim, characterized in that said thermoplastic material is "Zeonex".

11. A method according to any one of claims 1 to 9, characterized in that said thermoplastic material is PMMA.

12. A method according to claim 11, characterized in that the PMMA is injected at a temperature of about 220°C and at a rate of substantially 725 mm^3/s, and is then compacted at 58 MPa.

13. A method according to claim 12, characterized in that the PMMA is compacted after injection at 43 MPa for 1 s, then at 46 MPa for 2 s, then at 50 MPa for 3 s, and finally at 58 MPa for 40 s, and its cooling time in the mold is then 150 s.

14. An electronic display arrangement suitable for mounting on a frame (34) of the pair of spectacles type or on a specific system for positioning in front of the eyes of a user, the arrangement comprising at least one light duct (14) fabricated using the method in accordance with any preceding claim.